Crestron CEN-UPS1250

Uninterruptible Power Supply

> UPS and power conditioning — Engineered by APC

> 2-Series control system integration

> Centralized management via RoomView software

> Battery backup and power control management

> Surge protection for power line, coax and telco

> Isolated EMI and RFI noise filtering

> Automatic voltage regulation

> Built-in environmental monitoring

> Onboard timestamp logging

> 19" 4-post EIA rack-mountable

The CEN-UPS1250 is a 1250 Watt, 120 Volt uninterruptible power supply and power conditioner Engineered by APC® specifically for Crestron. Designed to protect Crestron® control systems, media servers, video displays and other devices, the CEN-UPS1250 employs pure sine wave battery backup to maintain continuous operation of critical components whenever power is disrupted. Remote monitoring and control through Crestron's award-winning RoomView® software, and full 2-Series control system integration, deliver a comprehensive power management and protection solution that's an integral part of the complete Crestron control network.

Pure Sine Wave Battery Backup—Any unexpected shutdown due to the sudden loss of power will certainly disrupt workflow and stop a presentation dead in its tracks, but it can also cause the loss of precious data and system settings, and can even damage hard drives and other vulnerable components. The CEN-UPS1250 constantly monitors the incoming power line and instantly transfers power to battery backup in the event of such a power loss, ensuring the connected components continue to operate unhampered. It may also be configured to transfer to battery in the case of an over or under voltage condition, or if excessive line noise or distortion is detected, ensuring optimum performance of sensitive video and audio equipment during momentary power glitches.

When running on battery backup, the CEN-UPS1250 can power a rack full of equipment for several minutes without interruption. In the event of a prolonged power outage, a properly managed shutdown of the equipment can be performed automatically. Configurable "load-shedding" allows only certain components to be shut down, preserving battery fuel and extending runtime for more vital components. The CEN-UPS1250 will also ensure a smooth changeover from primary power to a backup generator.

Managed Power Control—The CEN-UPS1250 provides twelve 120V power outlets organized in 4 banks. Each of the four banks of outlets is independently switchable, with fully managed power-up and shutdown available at the press of a single button or control system command. Up to 10 seconds of delay adjustment on banks 3 and 4 enables customized sequential switching capability. Sequential switching ensures that all the components of a complete system are powered up and down in proper order, avoiding dangerous transients that can damage delicate components and trip the main circuit breaker. Components such as video projectors and media servers that require systematic shutdown and restart can be managed seamlessly through integration with a control system.

Automatic Voltage Regulation—Keeping the voltage within a safe operating range helps prevent equipment malfunctions and can even improve audio and video performance. Using automatic voltage regulation, the CEN-UPS1250 can correct for many high and low voltage fluctuations without having to switch to battery operation, preserving battery fuel for more serious situations.

Surge Protection—The CEN-UPS1250 provides thorough protection against surges, spikes, and lightning. In addition to power line protection on all 12 outlets, there is also built-in surge protection for two separate coax lines and one telephone line, delivering a complete solution for protecting TVs, cable and satellite receivers, modems, and conferencing devices.

Noise Filtering—Built-in EMI and RFI noise filtering eliminates the electromagnetic and radio frequency interference that can negatively impact sound and video quality. Each of the four outlet banks provides filtering protection specialized for a specific type of device: DIGITAL, DISPLAY, ANALOG, and HI-CURRENT. Each bank is electrically isolated to prevent any noise present on one bank from reaching the devices connected to any other bank.

Environmental Monitoring—Using the external probe included, ambient temperature and relative humidity levels can be measured and recorded, and even reported to the control system or central help desk. Using this feature, safe operating limits can be specified for all of the equipment within a room or rack so that whenever the limits are exceeded, the user is notified, climate control is adjusted, and if necessary the equipment can be powered down safely.

RoomView® and Control System Integration—Monitoring and operation of the CEN-UPS1250 extends beyond its front panel, providing direct communication with Crestron's RoomView Remote Asset Management Software as well as with Ethernet-enabled 2-Series control systems. The CEN-UPS1250 notifies RoomView whenever it switches to battery backup, and warns if the battery is low or overloaded. It also reports which outlet banks are on, as well as the line voltage, output voltage, frequency, voltage regulation status, system load, internal temperature, ambient temperature and humidity, and battery condition. Centralized monitoring and logging via RoomView provides an invaluable resource for quickly resolving power line problems and maintaining batteries.

Built-in Logging—In addition to RoomView, the CEN-UPS1250 also supports onboard timestamp logging. Data can be set to log every 1 to 60 minutes with sufficient memory for at least 30 days of history, recording the load, battery condition, line voltage, outlet on/off status, and environmental conditions. Instantaneous events such as switching to battery, low battery warnings, and self-tests are also logged.

Rack-mountable—A heavy duty rackmount hardware kit is provided to mount the unit into any EIA standard 4-post 19" equipment rack up to 28" deep. The feet on the bottom of the unit can be unscrewed and removed to save space when the unit is rack-mounted.

SPECIFICATIONS

UPS/Power Conditioner

Output Power Capacity: 1250 Watts (1440 VA) @120 Volts AC nominal
Efficiency: 90% at full load
Output Voltage Distortion: <5% at full load
Output Frequency: 47 to 63 Hz (sync to line power input)
Waveform Type: Sine wave
Transfer Time: 7mS typical, 10mS maximum during blackout
Power Line Surge Protection: Rated for 4080 Joules

Crestron CEN-UPS1250 Uninterruptible Power Supply

Filtering: Full-time multi-pole noise filtering, 5% IEEE surge let-thru, zero clamping response time, meets UL 1449 Dataline protection
Voltage Regulation: Performs voltage boost or trim to maintain 120V nominal output
Maximum Output Current: 12 Amps per outlet, 12 Amps total

Power Requirements

Input Voltage: 92 to 142 Volts AC, 120 Volts nominal
Input Frequency: 47 to 63 Hz
Maximum Input Current: 12 Amps (when fed from 15 Amp circuit)

Battery

Internal Battery: (4) 12 Volt, 9Ah maintenance-free sealed lead-acid w/suspended electrolyte, Crestron model CEN-UPS1250-BTP included
Backup Runtime: ~12 minutes @ half load (625W), ~2.7 minutes @ full load (1250W)
Recharging Time: ~8 hours typical to 90% capacity following a discharge to shutdown @ half load
Battery Life: 2 to 5 years under normal use

Ethernet

10BaseT/100BaseTX, auto-switching, auto-negotiating, autodiscovery, full/half duplex, TCP/IP, UDP/IP, CIP, SNMP, 128-bit SSL encryption, IEEE 802.3U compliant

Connectors

BANK 1 – DIGITAL DEVICES: (5) NEMA 5-15R female, grounded AC power outlets, switched; includes noise filtering and protection for digital devices such as control systems, power supplies, touchpanels, and media servers

BANK 2 – DISPLAYS: (2) NEMA 5-15R female, grounded AC power outlets, switched; includes noise filtering and protection for display devices such as LCDs, plasmas, and projectors

BANK 3 – ANALOG DEVICES: (2) NEMA 5-15R female, grounded AC power outlets, delayed-switched; delayed turn-on, adjustable 0 to 10 seconds; includes noise filtering and protection for analog devices such as Adagio control systems and tuners

BANK 4 – HI-CURRENT DEVICES: (2) NEMA 5-15R female, grounded AC power outlets, delayed-switched; delayed turn-on, adjustable 0 to 10 seconds; includes noise filtering and protection for high-current devices such as amplifiers

EXTERNAL BATTERY: (1) Connector for optional external battery, sold by APC*

SERVICE PORT: (1) USB Type B female, used for factory configuration only

TELCO IN: (1) 4-pin RJ11 female, dual-line telephone line connection
TELCO OUT: (2) 4-pin RJ11 female, protected dual-line telephone/modem connections
CABLE IN: (1) F-type coaxial, female, coaxial cable or antenna source connection
CABLE OUT: (1) F-type coaxial, female, protected TV/receiver or modem connection
SATELLITE IN: (1) F-type coaxial, female, coaxial cable or antenna source connection
SATELLITE OUT: (1) F-type coaxial, female, protected TV/receiver or modem connection

COMPUTER: (1) USB Type B female, USB computer console port (cable included)

LAN: (1) 8-wire RJ45 with 2 LED indicators, 10/100BaseT Ethernet port
Green LED indicates link status, yellow LED indicates Ethernet activity

G: (1) Binding post, chassis ground lug

92-142V~12A 47-63Hz: (1) IEC-320 C14 chassis plug, line power input
Mates with 10 ft (3.05 m) power cord, included

ENV PROBE: 6-pin mini-DIN, female
Connection for external temperature/RH sensor, included

Buttons

SETUP: (1) Sequences through various configuration settings and operations
STATUS: (1) Sequences through display of various electrical and environmental measurements, operational status, battery condition and other system information
∧, V: (2) Used to adjust configuration settings up/down or on/off
Power/Standby: (1) Turns all output banks on/off, forces cold-start to battery when held

CIRCUIT BREAKER (rear): Disrupts power to all outputs in case of an overload condition, press to reset
RESET (rear): (1) Red miniature pushbutton, resets communications board

Display

Vacuum fluorescent, (2) lines, (20) characters per line

LED Indicators

BATT IN USE: (1 red) Indicates output power is being fed from battery backup
ON LINE: (1 green) Indicates a working connection to the control system
DELAY AMP: (1 green) Indicates BANK 4 – HI-CURRENT DEVICES output is turned on
REGULATING: (1 green) Indicates voltage regulation is operating to compensate for a high or low line voltage condition
LOW BATT: (1 red) Indicates remaining backup time has fallen below a preset amount, adjustable from 2 to 26 minutes
AC PWR OK: (1 green) Indicates the line input voltage is within the acceptable operating range of 92V to 142V
FILTERING: (1 green) Indicates that the EMI and RFI noise reduction circuit is active
OVERLOAD: (1 red) Indicates there is too much load connected to the output
WIRING FAULT (rear): (1 red) Indicates a missing ground, overloaded neutral, or reversed polarity at the line power input

Alarm

Audible alarm indicates when in backup mode, when battery is low, and when overloaded

Environmental

Temperature: 32° to 104°F (0° to 40°C)
Humidity: 10% to 90% RH (non-condensing)

Enclosure

Chassis: Steel, black matte powder coat finish
Cooling: Microprocessor-controlled ultra-quiet rear-facing fan, vented sides
Faceplate: Extruded aluminum, black matte powder coat with polycarbonate label overlay
Mounting: Freestanding or 3U 19-inch rack-mountable, rack must be 4-post type up to 28-inch maximum depth (removable feet and rack mount kit included)

Dimensions

Height: 5.20 (13.21 cm) without feet
Width: 17.03 in (43.26 cm), 19.0 in (48.26 cm) with ears
Depth: 19.00 in (48.26 cm)

Weight

62.0 lb (28.18 kg)

** American Power Conversion Corp. (APC), W. Kingston, Rhode Island, US; Website: www.apc.com.*

Rear View

INCLUDED ACCESSORIES

CEN-UPS1250-BTP
Internal Battery Pack

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